AMENDMENTS TO THE CLAIMS:

Please amend the claims to read as follows:

Listing of Claims:

1. (Currently Amended) A circuit, comprising:

a filter processing element reconfigurable to process a signal by use of ~~a~~ at least one process selected from a group ~~consisting~~ comprising of digital filtering, adaptive equalization, resampling, despreading, and fast-Fourier transforming;

at least one decoding processing element to decode and correct errors in said signal;

a general purpose processing element to process said signal by use of ~~an encoding~~ at least one code process selected from a reconfiguration group ~~consisting~~ comprising of deinterleaving, descrambling, cyclic redundancy checking, convolutional encoding, Reed-Solomon encoding, turbo encoding, and Trellis encoding; and

one or more control units to direct the operations of the processing elements according to a first set of protocols,

wherein the processing elements are coupled in a network.

2. (Currently Amended) The circuit of claim 1, wherein said ~~decode of said~~ at least one decoding processing element includes ~~a~~ at least one decode process selected from a reconfiguration group ~~consisting~~ comprising of a first forward error correction decoding, Reed-Solomon forward error correction decoding, turbo decoding, Trellis decoding, and Viterbi decoding.

3. (Original) The circuit of claim 1, wherein said one or more control units are implemented in said filter processing element.

4. (Currently Amended) The circuit of claim 1, wherein said one or more control units are implemented in said at least one decoding processing element or said general purpose processing element.

5. (Original) The circuit of claim 1, wherein said one or more control units reconfigure the processing elements to operate according to a second set of protocols.

6. (Currently Amended) The circuit of claim 5, wherein either of said first set and said second set of protocols include parameters for operation within a network selected from a group ~~consisting~~ comprising of a wired network, a wireless network, a local area network, a wide area network, and an optical network.

7. (Original) The circuit of claim 1, wherein said network further includes one or more routers.

8. (Currently Amended) The circuit of claim 1, further comprising:

a communications interface to couple said processing elements to said network; and

a supplemental processing element to transmit said signal on a communications path[[,]] coupled to said ~~communications infrastructure by~~ network via said communications interface,

wherein said supplemental processing element receives said signal after processing by said processing elements.

9. (Original) The circuit of claim 8, wherein said communications interface includes at least one data router adapter.

10. (Currently Amended) A method, comprising:

determining operations of one or more reconfigurable processing elements according to a first set of protocols;

receiving a signal from a network at a reconfigurable filter processing element;

processing said signal at said filter processing element by use of ~~a~~ at least one process selected from a reconfiguration group ~~consisting~~ comprising of digital filtering, adaptive equalization, resampling, despreading, and fast-Fourier transforming;

decoding said signal to decode and correct errors in said signal by at least one decoding processing element; and

processing said signal by a general purpose processing element by use of ~~an encoding~~ at least one code process ~~processing~~ selected from a reconfiguration group ~~consisting~~ comprising of deinterleaving, descrambling, cyclic redundancy checking, convolutional encoding, Reed-Solomon encoding, turbo encoding, and Trellis encoding.

11. (Currently Amended) The method of claim 10, wherein ~~said decode of~~ said at least one decoding processing element ~~includes~~ is reconfigurable to perform ~~a~~ at least one decode process

selected from a reconfiguration group ~~consisting~~ comprising of a first forward error correction decoding, Reed-Solomon forward error correction decoding, turbo decoding, Trellis decoding, and Viterbi decoding.

12. (Original) The method of claim 10, wherein said one or more control units are implemented in said filter processing element.

13. (Currently Amended) The method of claim 10, wherein said one or more control units are implemented in said at least one decoding processing element or said general purpose processing element.

14. (Original) The method of claim 10, wherein said one or more control units reconfigure the processing elements to operate according to a second set of protocols.

15. (Currently Amended) The method of claim 14, wherein either of said first set and said second set of protocols include parameters for operation within a network selected from a group ~~consisting~~ comprising of a wired network, a wireless network, a local area network, a wide area network, and an optical network.

16. (Original) The method of claim 10, wherein said network further includes one or more routers.

17. (Original) The method of claim 10, further comprising:

transmitting said signal by a supplemental processing element on a communications path after said signal is processed by said processing elements,

wherein a communications interface couples said processing elements to said network, and wherein said network couples said supplemental processing element to said communications interface.

18. (Original) The method of claim 17, wherein said communications interface includes at least one data router adapter.

19. (Currently Amended) A ~~machine-readable~~ computer-readable medium that provides instructions, which when executed by a processing element, cause the processing element to perform operations comprising micro-coded accelerator based operations of:

receiving a signal from a network at a reconfigurable filter processing element;

processing said signal at said filter processing element by use of ~~a~~ at least one process selected from a reconfiguration group ~~consisting~~ comprising of digital filtering, adaptive equalization, resampling, despreading, and fast-Fourier transforming;

decoding said signal to decode and correct errors in said signal by at least one decoding processing element; and

processing said signal by a general purpose processing element by use of ~~an encoding~~ at least one code process ~~processing~~ selected from a reconfiguration group ~~consisting~~ comprising of

deinterleaving, descrambling, cyclic redundancy checking, convolutional encoding, Reed-Solomon encoding, turbo encoding, and Trellis encoding.

20. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 19, wherein ~~said decode of~~ said at least one decoding processing element ~~includes~~ is reconfigurable to perform ~~a~~ at least one decode process selected from a reconfiguration group ~~consisting~~ comprising of a first forward error correction decoding, Reed-Solomon forward error correction decoding, turbo decoding, Trellis decoding, and Viterbi decoding.

21. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 19, wherein said one or more control units are implemented in said filter processing element.

22. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 19, wherein said one or more control units are implemented in said at least one decoding processing element or said general purpose processing element.

23. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 19, wherein said one or more control units reconfigure the processing elements to operate according to a second set of protocols.

24. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 23, wherein either of said first set and said second set of protocols include parameters for operation

within a network selected from a group ~~consisting~~ comprising of a wired network, a wireless network, a local area network, a wide area network, and an optical network.

25. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 19, wherein said network further includes one or more routers.

26. (Currently Amended) The ~~machine-readable~~ computer-readable medium according to claim 19, providing further instructions, which when executed by a processing element, cause the processing element to perform a further operation of:

transmitting said signal by a supplemental processing element on a communications path after said signal is processed by said processing elements,

wherein a communications interface couples said processing elements to said network, and wherein said network couples said supplemental processing element to said communications interface.

27. (Currently Amended) The ~~machine-readable~~ computer-readable medium of claim 26, wherein said communications interface includes at least one data router adapter.